WHAT IS CLAIMED IS:

1. A method of reducing printing defects in an ink jet printer including at least one printhead mounted to a printhead carrier for printing on a print media sheet, comprising the steps of:

determining a vertical alignment error for said at least one printhead; and

adjusting a sheet feed increment for said print media sheet based on said vertical alignment error.

2. The method of claim 1, wherein said at least one printhead includes two printheads.

3. The method of claim 1, wherein an amount of adjustment of said sheet feed increment is dependent on a direction of travel of said at least one printhead.

4. The method of claim 1, wherein a first amount of adjustment of said sheet feed increment is used when a next scan of said at least one printhead is in a first scan direction, and a second amount of adjustment of said sheet feed increment is used when a subsequent scan of said at least one printhead is in an opposite scan direction, said second amount being different from said first amount.

5. The method of claim 1, wherein said at least one printhead includes a first printhead and a second printhead, said method including the further steps of:

making one of a positive adjustment and a negative adjustment to said sheet feed increment when printing with said first printhead in a first scan direction; and

making an other of said positive adjustment and said negative adjustment to said sheet feed increment when printing with said second printhead in said first scan direction.

6. The method of claim 1, wherein said determining step is performed by measuring said vertical alignment error using a sensor.

7. The method of claim 1, said determining step including the steps of:

generating a bi-directionally printed pattern; and

scanning said bi-directionally printed pattern with a sensor to collect vertical alignment data.

8. The method of claim 1, said determining step including the steps of:

(a) printing on said sheet of print media a plurality of blocks in a first pass in a first carrier scan direction, said blocks being spaced apart;

(b) printing on said sheet of print media a first block on a second pass in a second carrier scan direction opposite to said first carrier scan direction, and positioned adjacent one of said plurality of blocks printed in said first pass;

(c) advancing said sheet of print media by a predetermined advance distance, and recording a current location of said sheet of print media;

(d) printing on said sheet of print media a next block in said second carrier scan direction between two of said plurality of blocks printed in said first pass that were not previously printed between; and

(e) scanning a sensor across a pattern formed by said printing of said plurality of blocks, said printing of said first block and said printing of said next block, to collect data representing relative vertical positions of said plurality of blocks, said first block and said next block.

9. The method of claim 8, further comprising the step of repeating steps (c) and (d) until all blocks to be printed in said second carrier scan direction have been printed for said pattern.

10. The method of claim 1, said determining step including the steps of:

defining a vertical sheet feed direction;

printing a first plurality of rectangular blocks in a first pass of a printhead in a first scanning direction, said first plurality of rectangular blocks being spaced apart, said first plurality of rectangular blocks being positioned to be parallel to said vertical sheet feed direction;

printing a second plurality of rectangular blocks in a second pass of said printhead in a second carrier scan direction opposite to said first carrier scan direction,

each of said second plurality of rectangular blocks being positioned adjacent respective ones of said first plurality of rectangular blocks, said second plurality of rectangular blocks being positioned to be parallel to said vertical sheet feed direction, said first plurality of rectangular blocks and said second plurality of rectangular blocks forming a first pattern;

scanning said first pattern with a sensor to collect horizontal alignment data relating to a horizontal alignment of said first rectangular blocks in relation to said second rectangular blocks;

printing a first plurality of slanted blocks in a third pass of said printhead in said first carrier scan direction, said first plurality of slanted blocks being positioned to be non-parallel to said vertical sheet feed direction, said first plurality of slanted blocks being spaced apart;

printing a second plurality of slanted blocks in a fourth pass of said printhead in said second carrier scan direction, said second plurality of slanted blocks being positioned to be non-parallel to said vertical sheet feed direction, said first plurality of slanted blocks and said second plurality of slanted blocks forming a second pattern;

scanning said second pattern with said sensor to collect composite alignment data relating to alignment of said first plurality of slanted blocks in relation to said second plurality of slanted blocks, said composite alignment data including both a horizontal alignment data component and a vertical alignment data component;

processing said composite alignment data and said horizontal alignment data to generate a vertical alignment value corresponding to said vertical alignment error.

11. The method of claim 10, further comprising the step of scaling said composite alignment data in relation to said horizontal alignment data.

12. The method of claim 11, wherein said processing step includes the step of subtracting said horizontal alignment data from the scaled composite alignment data.

13. The method of claim 10, wherein an angle of a slant of said first plurality of slanted blocks and said second plurality of slanted blocks is used to establish a ratio between vertical alignment components and horizontal alignment components present in said second pattern.

14. The method of claim 13, wherein said angle of said slant is in a range of 30 degrees to 60 degrees.

15. A method of determining a vertical alignment error for a printhead, comprising the steps of:

(a) printing on a sheet of print media a plurality of blocks in a first pass in a first carrier scan direction, said blocks being spaced apart;

(b) printing on said sheet of print media a first block on a second pass in a second carrier scan direction opposite to said first carrier scan direction, and positioned adjacent one of said plurality of blocks printed in said first pass;

(c) advancing said sheet of print media by a predetermined advance distance, and recording a current location of said sheet of print media;

(d) printing on said sheet of print media a next block in said second carrier scan direction between two of said plurality of blocks printed in said first pass that were not previously printed between; and

(e) scanning a sensor across a pattern formed by said printing of said plurality of blocks, said printing of said first block and said printing of said next block, to collect data representing relative vertical positions of said plurality of blocks, said first block and said next block.

16. The method of claim 15, further comprising the step of repeating steps (c) and (d) until all blocks to be printed in said second carrier scan direction have been printed for said pattern.

17. A method of determining a vertical alignment error for a printhead, comprising the steps of:

defining a vertical sheet feed direction;

printing a first plurality of rectangular blocks in a first pass of said printhead in a first scanning direction, said first plurality of rectangular blocks being spaced apart, said first plurality of rectangular blocks being positioned to be parallel to said vertical sheet feed direction;

printing a second plurality of rectangular blocks in a second pass of said printhead in a second carrier scan direction opposite to said first carrier scan direction, each of said second plurality of rectangular blocks being positioned adjacent respective ones of said first plurality of rectangular blocks, said second plurality of rectangular blocks being positioned to be parallel to said vertical sheet feed direction, said first plurality of rectangular blocks and said second plurality of rectangular blocks forming a first pattern;

scanning said first pattern with a sensor to collect horizontal alignment data relating to a horizontal alignment of said first rectangular blocks in relation to said second rectangular blocks;

printing a first plurality of slanted blocks in a third pass of said printhead in said first carrier scan direction, said first plurality of slanted blocks being positioned to be non-parallel to said vertical sheet feed direction, said first plurality of slanted blocks being spaced apart;

printing a second plurality of slanted blocks in a fourth pass of said printhead in said second carrier scan direction, said second plurality of slanted blocks being positioned to be non-parallel to said vertical sheet feed direction, said first plurality of slanted blocks and said second plurality of slanted blocks forming a second pattern;

scanning said second pattern with said sensor to collect composite alignment data relating to alignment of said first plurality of slanted blocks in relation to said second plurality of slanted blocks, said composite alignment data including both a horizontal alignment data component and a vertical alignment data component; and

processing said composite alignment data and said horizontal alignment data to generate a vertical alignment value corresponding to said vertical alignment error.

18. The method of claim 17, further comprising the step of scaling said composite alignment data in relation to said horizontal alignment data.

19. The method of claim 18, wherein said processing step includes the step of subtracting said horizontal alignment data from the scaled composite alignment data.

20. The method of claim 17, wherein an angle of a slant of said first plurality of slanted blocks and said second plurality of slanted blocks is used to establish a ratio

between vertical alignment components and horizontal alignment components present in said second pattern.

21. The method of claim 20, wherein said angle of said slant is in a range of 30 degrees to 60 degrees.